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Analysis of Socio Economic Status of Tribals and Pig Husbandry Practices in Kolli Hills, Namakkal District of Tamil Nadu, India

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Abstract

The present study was carried out to analyse the socio economic status of tribals and their involvement in agriculture and animal husbandry activities with special reference to pig husbandry practices. The results revealed that most of the farmers belong to scheduled tribes (97.40 per cent) and were educated at primary level school education (58.78 per cent). It was observed that majority of farmers (58.33 per cent) were having an annual income less than Rs. 30,000. Among the animal husbandry activities dairy contributed the major sector in the study area. Analysis of pig husbandry practices revealed that, all the respondents reared the desi pigs for fattening purpose and not for breeding purpose. Majority of farmers reared the pigs in open shed and followed swill feeding. Most of the farmers did not follow any deworming and vaccination to their pigs. Pigs were marketed at 80 to 90 kg body weight at the rate of Rs. 90 to 100 per kg live weight.

Key words: Socio economic status, Tribals, Kolli Hills, Pig husbandry practices

Introduction

The socio economic status of hill farmers is an important issue for study as farmers in hills are dwelling in a complex, diverse and risk prone situation. They are usually practicing traditional ways of cultivation and animal husbandry activities which adds little to the input. Till recently, pig farming did not get adequate role in the rural development programmes aimed at alleviating the problems of poverty and unemployment and the productivity of desi pigs under traditional production system which is very low in hilly region. Therefore, introduction of improved technologies of pig farming not only increase the returns but also improve the socio-economic status of pig farmers. In this regard one of the DBT funded project entitled “pig husbandry based integrated approach for empowerment of SC/ST rural women of Kolli Hills of Tamil Nadu” is functioning since 2016 at Department of Livestock Production Management, Veterinary College and Research Institute Namakkal, Tamil Nadu for transferring the improved pig production practices to the rural women of Kolli Hills of Tamil Nadu. The objective of the present study was to analyse the socio economic status of farmers and animal husbandry activities in the study area which falls under semi-arid tropical region.

Materials and Methods

The study was undertaken in order to improve the productivity in tribal areas by supply of superior germ plasam, imparting hands on training on scientific methods of pig rearing, hygienic method of pig slaughter, preparation of value added products and marketing through formation of farmer clubs to improve the profit per centage and to avoid involvement of middlemen. Before implementation of the project, baseline survey work was conducted at Kolli Hills which contains 14 village panchayat, from that 7 village panchayat were selected and from each village panchayat one village was selected randomly for the project implementation site. Out of 431 families in selected villages of Kolli Hills a total of 384 respondents were interviewed with pre-tested interview schedule. Primary data were collected using standard interview schedule by personal interview from the farmers. The variables viz., socio economic status of the farmers, livestock holding details with special reference to management practices followed in pig rearing. Simple statistical tools like frequency, per centages, mean and standard deviation were used for analysis and interpretation of data.

Results and Discussion

Community, education status and family size

In this study area it was observed that 97.40 per cent of people belonged to scheduled tribes followed by Scheduled caste (2.08 per cent) and other backward category (0.52 per cent). Sivakumar *et al.* (2006) reported that in Kancheepuram district of Tamil Nadu, 50.00 per cent belonged to ST and 44.54 per cent belonged to SC. The literacy level is generally low as 50.78 per cent obtaining only primary education. About 22.06 per cent are class V to VIII followed by 16.84 per cent in IX to X category passed while only 9.57 per cent fall in category of Higher secondary and 0.75 per cent were found to be college level educated. The numbers of family members indicate that over 51.60per cent of family members were males and remaining 48.40 per cent are females. In respondent families, about 60.94 per cent of family size falls between 3-5 which is followed by 32.81 per cent in 2 family size category, 4.43 per cent in 5-7 family size category and 1.82 per cent in 7-9 family size category. Agriculture and allied activities was the sole occupation (95.10 per cent) whereas 4.90 per cent of farmers had subsidiary occupations like labour, shop keeping, driving and business activities.

Land holding size and income status of the farmers

It was observed that the highest respondents were marginal (59.11 per cent) followed by small (19.01per cent) and landless (16.41per cent) and large farmers (5.47 per cent). Most of the lands (94.80per cent)were under unirrigated and only 5.20 per cent of land area was under irrigated category. More or less similar observations were made by Kumaresan *et al*. (2009) in north-east India. The major crops cultivated in the study area were Black pepper (46.88per cent), and tapioca (21.09per cent) followed by coffee (14.32 per cent), banana (11.20 per cent) and others (6.51 per cent).Among the selected respondents majority of farmers (58.33%) were having an annual income less than Rs.30,000 followed by farmers (32.03 per cent) in the range of Rs. 30,000 -Rs. 40,000, farmers (9.11 per cent), in the range of Rs. 40,000 - Rs. 50,000 and 0.52 per cent in the range of above Rs. 50,000. On the Contrary Shyam *et al*. (2015) reported in Assam 50 per cent of the farmers earned medium income of Rs. 60,033.33 to Rs. 81,466.67and Tudu *et al*. (2015) concluded that 66.92 per cent of the pig farmers in Nadia district of West Bengal were landless farmers. Patr *et al*. (2014) reported 39.63 per cent of traditional pig farmers of Nagaland earned less than Rs. 30,000 and 41.44 per cent earned less than Rs. 60,000.

Animal husbandry activities other than pig husbandry

Among the animal husbandry activities, dairy contributes the major sector among the tribal peoples followed by goat rearing and desi chicken rearing. Status of mean per cent of livestock holding in the seven selected villages of kolli Hills of Namakkal district of Tamil Nadu viz, cattle, sheep, goat,

Table 1. Pig husbandry practices followed in kolli hills

Variables	Categories	Frequency	Percentage
Interested in pig husbandry activities	Not Interested	70	18.22
	Interested	314	81.73
	Total	384	100.00
Type of farm	Breeding farm	-	
	fattening farm	201	100.00
	Breeding cum fattening	-	-
	Total	201	100.00
Type of breed	Exotic	-	-
	Desi	201	100.00
	Desi with other cross bred	-	-
	Total	201	100.00
Housing type	Open	150	74.62
	Closed	30	14.93
	Semi-open	21	10.45
	Total	201	100.00
Floor pattern	Kutcha	10	4.98
	Pucca	15	7.46
	Mud Floor	176	87.56
	Total	201	100.00
Feeding practices	Swill feed	141	70.15
	Swill feed and Concentrate	50	24.88
	Concentrate only	10	4.97
	Total	201	100.00
Health Management	Vaccination	-	-
	Deworming	10	4.98
	No vaccination and deworming	191	95.02
	Total	201	100.00
Health Cover	Veterinary Dispensary	145	72.14
	Private Doctor	-	-
	Paravet	-	-
	Ethnoveterinary	56	27.86
	Total	201	100.00
Marketing	Direct sale to the consumer	159	79.10
	Through middleman	40	19.90
	Through shandy	2	1.00
	Total	201	100.00

poultry and rabbits were 68.49per cent, 10.41per cent, 8.33per cent, 9.38per cent, and 3.39per cent, respectively and most of the farmers were having mixed farm activities.

Existing pig farming practices followed in Kolli hills

Type of farm and breeds maintained

Majority (81.73)of the farmers were interested in pig husbandry activities. It was observed that about 100 per cent of the farmers were rearing desi pigs for fattening purpose only. Total number of farmers interviewed was 384, out of which 314 farmers interested in pig husbandry activities. Total 201 farmers reared desi pigs in the project implementation area and thus pig husbandry activities were collected from 201 pig farmers only. None of the farmers maintained breeding unit since there is a false myth for a longer period of time that if any mortality occurred at the time of farrowing that is not good sign for their family so that none of the farmers were interested in rearing breeding unit and farrowing process. For that the farmers were purchasing piglets from nearby plain areas at the age of 2-3 months for fattening purpose. in plain Semi-arid region of Tamil Nadu majority of the farmers (69.24 per cent) were maintaining breeding cum fattening farms and 15.38 per cent followed fattening farm alone (Ramesh *et al. ,* 2015). At the same time Patr *et al.* (2014) reported in Nagaland that 34.23 per cent of the farmers reared pigs for fattening purpose and 33.33 per cent of the farmers reared pigs for breeding purpose and 32.43 per cent of them reared for both breeding cum fattening purpose.

Type of housing

It was observed that most of the farmers reared pigs under open type of housing followed by the farmers constructed the sty as partly closed and partly open type and only less as closed type (Table 1). The roof of the sty was mainly covered by thatches. Majority of the farmers were rearing their pigs on mud floor followed by pucca flooring and least per cent of the farmers followed Kutcha flooring. Kumaresan *et al.* (2009) in north-east India and Jini *et al.* (2010) in Arunachal Pradesh observed that the roofing materials of pig sty were comprised of locally available materials ; bamboo, tin, thatch, polythene, hard boards. On the contrary Patr *et al.* (2014) observed in Nagaland that 50.45 per cent of farmers provided galvanized iron sheet and 16.2 per cent provided thatched roof. Gyaneshwari *et al.* (2014) observed that all the pig farmers in north eastern region of Meghalaya constructed the sty with half closed and half open type (88 per cent) with mostly locally available materials like bamboo and woods with raised platform above 2 to 3 feet from ground level for easy cleaning, prevention from damping of floors during the rainy season.

Feeding management

In the study area, majority of the pig farmers followed swill feeding only and 24.88 per cent of the farmers were rearing pigs on concentrate feed along with house waste/swill feed and only 4.97 per cent of them purchased commercial feed from local markets or prepared their own mix with locally available ingredients. Similar observation was recorded by Nath *et al.* (2013) in Sikkim, where only less than 8 per cent of farmers fed concentrate feed. Ramesh *et al.* (2015) reported 34.62 per cent of farmers maintained their breeding stock with concentrate feed in plains semi-arid region of Tamil Nadu. Latha and Prabhakar (2012) observed that 75.68 per cent of the pig farmers in Krishna district of Andhra Pradesh reared pig mostly on hostel waste. Patr *et al.* (2014) also observed in Nagaland, where 93.69 per cent of pig farmers practised swill feed which include kitchen and market waste.

Health cover and marketing

Majority of the farmers did not use any deworming and vaccination to their desi pgs. For the common ailments of their livestock they depend mainly on veterinary dispensary followed by ethno veterinary medicines either mixed with swill feed or water. Whereas, Ramesh *et al.* (2015) reported 50 per cent of pig farmers in plains of semi-arid region of Tamil Nadu vaccinated their pigs against both

swine fever and FMD and 19.23 per cent of the farmers did not give any vaccination and 61.54 per cent of farmers followed deworming.

Majority of the pig farmers (79.1 %) sold fattened desi pigs when they are reached the body weight of 80 to 90 kg directly to the consumer and 19.90 and 1.00 per cent sold through middle man and shandy, respectively. The marketing price depend upon the festival seasons and market demand from the consumers which ranged from Rs. 90 to 100 per kg live weight. The pigs were slaughtered mainly in their family marriage reception and also during festivals. Further, the pigs which were reared by the peoples in Kolli hills, fully utilized by themselves to meet out their requirements and they were not sold any where else i.e to the plain region of Tamil Nadu. Similar observations revealed in hilly regions by Rahman *et al.* (2008) in Mizoram.

Conflict of Interest: All authors declare no conflict of interest.

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